	Total Energy Requirement (.BU) GDP Growth Rate	
	8%	9%
2011-12	1097	1167
2016-17	1524	1687
2021-22	2118	2438
2026-27	2866	3423
2031-32	3880	4806

(c) Formulation of programmes/schemes to cater to the growing energy needs of the country is an on-going process. During the course of Eleventh Plan, schemes aggregating over 78,500 MW have been identified for commissioning. In addition, 14,000 MW is envisaged through renewable energy sources. The Working Group on Coal, and Lignite for formulation of Eleventh Five Year Plan has envisaged indigenous availability of 680 million tones of coal in 2011-12 though various schemes to be implemented by various stakeholders. The Working Group on Petroleum and Natural Gas for Eleventh Plan has projected production of crude oil to the tune of 206.76 Million Metric Tonnes, and projected production of Natural of Natural Gas to the tune of 224.6 Billion Cubic Meters during the course of Eleventh Plan.

Power situation

428. DR. V. MAITREYAN: Will the Minister of POWER be pleased to state:

the total demand of power in the country, State-wise;

the total generation of power in terms of thermal/hydel/nuclear and wind power in the country; State-wise;

the total shortfall in the power generation; and

whether new power projects have been approved and if so, the details of new power plants coming up across the country?

THE MINISTER OF POWER (SHRI SUSHIL KUMAR SHINDE): (a) The State-wise details of energy requirement and peak demand of power during the period April, 2007 to January, 2008 are given in Statement—I *(See* below).

The total power generated in the country during the current financial year (April, 2007 to January, 2008) was 586 Billion k Bh (BU) comprising 458 BU from Thermal, 14.2 BU from Nuclear 108.8 BU from hydro and 5.0 BU import from Bhutan. The State-wise details in this regard are given in Statement—U *(See* Below). The State-wise details of Latest available (2006-07) generation of power from wind trubines is given in Statement—III *(See* Below).

During the period April, 2007 to January, 2008 there was a marginal shortfall in power generation to the tune of 1.90 BU in the country which is 0.3% of the programmed generation for the period.

Under the Electricity Act, 2003, only hydro-electric projects require concurrence of the Central Electricity Authority (CEA). Four (4) hydro electric schemes namely Rangit Stage-IV (120 MW), Lower Jurala (240 MW), Pare (110 MW) and Dibang (3000 MW), aggregating 3470 MW have been concurred in by CEA during the current financial year (April, 2007 to January, 2008), Projects aggregating over 66,000 MW are presently under execution. The details of diese projects are given in Statement IV, V *&* VI.

Statement—I

State-wise details of energy requirement and peak demand of power during the period April, 2007 *to January,* 2008

State/System/Region	Energy Requirement (MU)	Peak Demand (MW)
Chandigarh	1,233	275
Delhi	19,286	4075
Haryana	24,432	4956
Himachal Pradesh	4,951	1061
Jammu & Kashmir	9,522	1950
Punjab	35,979	8672
Rajasthan	29,212	6374
Uttar Pradesh	51,153	11104
Uttarakhand	5,720	1167
Northern Region	181,488	32462
Chhattisgarh	11,547	2266
Gujarat	56,157	12047
Madhya Pradesh	33,549	7200
Maharashtra	94,566	18441
Daman & Diu	1,475	240
D.N. Haveli	2,790	460
Goa	2,275	457
Western Region	202,359	38287
Andhra Pradesh	52,748	9701
Karnataka	32,851	6583
Kerala	12,923	2918
Tamil Nadu	54,713	10334
Puducherry	1,536	276
Lakshadweep	20	6
Southern Region	154,771	26247
Bihar	7,626	1565
DVC	11,164	1787
Jharkhand	4,229	817
Orissa	15,529	2929
West Bengal	24,014	4997
Sikkim	232	67
Andaman-Nicobar	200	40
Eastern-Region	62,794	11385
Arunachal Pradesh	310	93
Assam	4,031	848
Manipur	460	119
Meghalaya	1,386	404
Mizoram	238	95
Nagaland	313	88
Tripura	654	170
North-Eastern Region	7,392	168
ALL INDIA	608,804	107,010

Statement—II

State-wise total Power Generation (Thermal, Nuclear and Hydro) during 2007-08 *(April to January O8)*

State	Category	Capacity (MW) (As On 31-01-08)	2007-08 Apr'07 to Jan'08 Pgrog. (MU)	Actual Gen. (MU)
1	2	3	4	5
Delhi	Thermal	1714.90	9287	9246.10
Delhi Total		1714.90	9287	9246.10
Haryana	Thermal	2270.00	11211	10930.31
	Hydro	62.40	241	237.27
Haryana Total		2332.40	11452	11167.58
Himachal Pradesh	Hydro	6085.45	20794	21587.24
Himachal Pradesh Total		6085.45	20794	21587.24
Jammu and Kashmir	Thermal	175.00	0	0.00
	Hydro	1870.65	7637	7881.94
Jammu and Kashmir Total		2045.65	7637	7881.94
Punjab	Thermal	2370.00	12923	13636.55
	Hydro	1310.50	4256	5096.50
Punjab Total		3680.50	17179	18733.05
Rajasthan	Thermal	3276.80	18984	18619.99
	Nuclear	740.00	3600	2069.19
	Hydro	430.00	952	1141.77
Rajasthan Total		4446.80	23536	21830.95
Uttar Pradesh	Thermal	12086.00	68043	68895.78
	Nuclear	440.00	985	590.67
	Hydro	522.60	1251	815.95
Uttar Pradesh Total		13048.60	70279	70302.40
Uttarakhand	Hydro	2853.85	8397	8535.78
Uttarakhand Total		2853.85	8397	8535.78
Chhattisgarh	Thermal	4630.00	24438	22682.98
	Hydro	137.00	335	240.19
Chhattisgarh Total		4767.00	24773	22923.17
Goa	Thermal	48.00	284	269.54
Goa Total		48.00	284	269.54
Gujarat	Thermal	7995.72	45122	42504.45
	Nuclear	440.00	1822	1687.50

1	2	3	4	5
	Hydro	1995.00	4668	5294.62
Gujarat Total		10430.72	51612	49486.57
Madhya Pradesh	Thermal	6042.50	33356	33044.25
	Hydro	2438.50	5250	5547.63
Madhya Pradesh Total		8481.00	38606	38591.88
Maharashtra	Thermal	11022.00	57194	55095.35
	Nuclear	1400.00	7529	6201.05
	Hydro	2829.80	4580	5451.36
Maharashtra Total		1525180	69303	66747.76
Andhra Pradesh	Thermal	8854.70	50176	48514.93
	Hydro	3632.50	6907	8731.85
Andhra Pradesh Total		12487.20	57083	57246.78
Karnataka	Thermal	2684.42	10562	10765.72
	Nuclear	660.00	28.59	2248.01
	Hydro	3448.00	10516	12091.61
Karnataka Total		6792.42	23937	25105.34
Kerala	Thermal	780.44	984	1897.25
	Hydro	1846.70	5752	7165.39
Kerala Total		2627.14	6736	9062.64
Lakshadweep	Thermal	9.97	20	24.00
Lakshadweep Total		9.97	20	24.00
Puducherry	Thermal	32.50	219	232.26
Pudueheny Total		32.50	219	232.26
Tamil Nadu	Thermal	7055.80	37996	38783.92
	Nuclear	440.00	1916	1426.18
	Hydro	2170.45	3812	5726.45
Tamil Nadu Total		9666.25	43723	45936.55
Andaman and Nicobar	Thermal	60.05	134	163.21
	Hydro	5.25	8	6.16
Andaman and Nicobar Total		65.30	142	169.37
Bihar	Thermal	1880.00	9369	5658.10
	Hydro	44.90	59	43.49
Bihar Total		1924.90	9428	5701.59
Jharkhand	Thermal	3090.00	10026	9153.78
	Hydro	214.00	305	421.99

1	2	3	4	5
Jharkhand Total		3304.00	10331	9575.77
Orissa	Thermal	3890.00	25291	26218.17
	Hydro	1936.50	4898	6995.93
Orissa Total		5826.50	30189	33214.10
Sikkim	Thermal	5.00	0	0.07
	Hydro	92.00	336	354.17
Sikkim Total		97.00	336	354.24
West Bengal	Thermal	8724.20	39068	38259.23
	Hydro	1116.50	469	814.71.
West Bengal Total		9840.70	39537	39073.94
Arunachal Pradesh	Hydro	415.50	1312	1434.06
Arunachal Pradesh Total		415.50	1312	1434.06
Assam	Thermal	890.00	2655	2321.94
	Hydro	325.00	1341	1434.07
Assam Total		1215.00	3996	3756.01
Manipur	Thermal	36.00	5	0.00
	Hydro	90.00	383	540.69
Manipur Total		126.00	388	540.69
Meghalaya	Hydro	235.20	821	817.55
Meghalaya Total		235.20	821	817.55
Mizoram	Thermal	22.92	0	2.45
Mizoram Total		22.92	0	2.45
Nagaland	Hydro	99.00	309	349.24
Nagaland Total		99.00	309	349.24
Tripura	Thermal	211.50	940	1033.78
	Hydro	15.00	42	30.38
Tripura Total		226.50	982	1064.16
Bhutan IMP	Hydro	0.00	5291	5063.95
All India	Thermal	89858.42	468287.00	457954.11
	Nuclear	4120.00	18711.00	14222.60
	Hydro	36222.25	95631.00	108787.99
	Bhutan Import	0.00	5291.00	5063.95
ALL INDIA TOTAL:		130200.67	587920.00	586028.65

NOTE: Generation exclude Renewable Energy Sources.

Generation include generation from Central Sector Projects located in the States.

Statement—III

State-wise details of generation from wind turbines during the year 2006-07

State	Installed Capacity (MW)	Generation (MU)
Gujarat	636	454.01
Maharashtra	1487	1091.5
Tamil Nadu	3471	5268.84
Rajasthan	469	532.60
Andhra Pradesh	122	149.18
Karnataka	854	1397.68
Madhya Pradesh	56.5	70.43
TOTAL:	7096	9585

Statement-IV

Details of projects under execution

SI. No.	Name of Project (State)	Capacity (MW)	Benefits (MW)
1	2	3	4
Hydro Projects likely to give benefits in Eleventh Plan			
	Central Sector		
	Parbati-II (NHPC) Pradesh (H.P.)	4x200 Himachal	800.00
	Chamera-III (NHPC)	3x77 H.P.	231.00
	Parbati-III (NHPC) Himachal Pradesh	4x130	520.00
	Kol Dam (NTPC) H.P.		
	Ram Pur (SJVNL) H.P.	4x200	800.00
	Uri-II(NHPC) Jammu & Kashmir (J & K)	6x68.67	412.00
	Sewa-II (NHPC) J&K	3x40 4x60	240.00
	Koteshwar (THDC) (Uttarakhand)	4x100	120.00
	Loharinagpala (NTPC Ltd.) Uttarakhand		
10.	Tapovan VIshnug (NTPC Ltd.) Uttarakhand	4x130	400.00
			600.00
			520.00

1 2	3	4
11. Teesta Low Dam-II (NHPC) W.B.	4x33	132.00
12. Teesta Low Dam-IV (NHPC) W.B.	4x40	160.00
13. Teesta V (NHPC) (Sikkim)	3x170	510.00
14. Subansiri Lower (NHPC) Arunachal Pradesh/Assam	8x250	2000.00
15. Kameng (NEEPCO) Arunachal Pradesh	4x150	600.00
		8045.00
State Sector		
16. Uhl-III Himachal Pradesh	3x33.33 .	100.00
17. Sawara Kuddu Himachal Pradesh	3x36.67	110.00
18. Baglihar-I (Jammu & Kashmir)	3x150	450.00
19. Maneri Bhali-II (Uttarakhand)	4x76	304.00
20. Purulia PSS West Bengal	4x225	225.00
21. Ghatghar PSS (Maharashtra)	2x125	250.00
22. Priyadarshni Jurala, Andhra Pradesh	6x39	234.00
23. Nagarjuna Sagar T Pool Andhra Pradesh	2x25	50.00
24. KuttiyadiAddl. Extn. Kerala	2x50	100.00
25. Pallivasal Kerala	2x30	60.00
26. VarahiExtn. Karnataka	2x115	230.00
27. Bhawani Kattlai Barrage-II Tamil Nadu (T.N.)	2x15	30.00
28. Bhawani Kattlai Barrage-Ill T.N.	2x15	30.00
29. Balimela Extn. (Orissa)	2x75	150.00
30 Myntdu, Meghalaya	2x42	84.00
		2407.00
Private Sector		
31. Allain Duhangan H.P.	2x96	192.00

1	2	3
32. Karcham Wangtoo H.P.	4x250	1000.00
33. Budhil H.P.	2x35	70.00
34. Malana-II H.P.	2x50	100.00
35. Sorang H.P.	2x50	100.00
36. Shrinagar Uttarakhand	4x82.5	330.00
37. Maheshwar (Madhya Pradesh)	10x40	400.00
38. Chujachen Sikkim	2x49.5	99.00
39. Teesta St. Ill Sikkim	6x200	600.00
TOTAL Hydro:	13343.00	2891.00
B. Under Execution Projects likely to	give benefits beyond Eleventh Plan	
Central Sector		
40. Chutak J&K	4x11	44.00
41. Nimoo Bazgo J&K	3x15	45.00
State Sector		
42. Pulichintala A.R	4x30	120.00
Private Sector		
39b. Teesta St. Ill	6x200	600.00
Sikkim		
43. Teesta St. VI	4x125	500.00
Sikkim		
TOTAL (B): Beyond 11th (Under Execution)		1309.00
Total Hydro (Under Execution):		14652.00

Abbreviations:

NHPC	National Hydro-electric Power Corporation
SJVN	Satluj Jal Vidyut Nigam Limited
THDC	Tehri Hydro Development Corporation
NEEPCO	North-Eastern Electric Power Corporation

Statement-V

Nuclear Power Projects under construction as on 01.*12.2007 for benefit during Eleventh five year plan and beyond*

SI.No.	Project Name	State		Capacity(MW)
	Central Sector			
1.	RAPP U-5 & U-6 (NPCIL)	Rajasthan	2x220	440
2.	KUDANKULAR U-l & U-2 (NPCIL)	Tamil Nadu	2x1000	2000
3.	Prototype Fast Breeader Reactor (KALAPAKKAM) (NPCIL)	Tamil Nadu	1x500	500
4.	KAIGAAPP, U-4 (NPCIL)	Karnataka	2x220	220
		TOTAL (Nuclear)		3160

Statement-VI

Details of Thermal Power Projects under construction in the country

SI. No.	Project Name	State	Capacity (MW;)	
1	2	3	4	
	Benefit during Eleventh Plan			
	Central Sector			
1.	Simhadri STPP Extn., NTPC Ltd.	Andhra Pradesh	2x500 MW	1000
2.	Barn STPP-I, NTPC Ltd.	Bihar	3x660 MW	1980
3.	Kahalgaon St-2, Ph-1, NTPC Ltd.	Bihar	3x500MW	1000
4.	Bhilai TPP Ph-I,NSPCL	Chhattisgarh	2x250MW	500
5.	Sipat-2, NTPC Ltd.	Chhattisgarh	2x500	500
6.	Sipat-I, NTPC Ltd.	Chhattisgarh	3x660MW	1980
7.	Korba STPP U-7, NTPC Ltd.	Chhattisgarh	1x500MW	500
8.	Indira Gandhi TPP, Aravali Power Co. Pvt.	Haryana	3x500MW	1500
9.	Chandrapura TPS Extn., Damodar Valley Corporation (DVC)	Jharkand	2x250MW	500
10.	Kodarma TPP,DVC	Jharkhand	2x500MW	1000
11.	Maithon Right Bank TPP, DVC & Tata	Jharkhand	2x525MW	1050
12.	Barsingsar Lignite, Neyveli Lignite Corporation (NLC)	Rajasthan	2xl25MW	250
13.	Neyveli TPS-II Exp., NLC	Tamil Nadu	2x250MW	500
14.	VallurTPP.NTECL	Tamil Nadu	2x500MW	1000
15.	National Capital Power Project St-II, U-5, & 6, NTPC Ltd.	Uttar Pradesh	2x490	980

1	2	3	4	
16.	Durgapur Steel TPS, DVC	West Bengal	2x500MW	1000
17.	Farakka STPS at II, NTPC	West Bengal	lx500MW	500
18.	Mejia Extn., DVC	West Bengal	2x500MW	1000
19.	Raghunathpur TPP, Ph-I, DVC	West Bengal	2x600MW	1200
	Central Sector	TOTAL	CAPACITY (MW)	17940
	State Sector			
1.	Kakatiya TPP, APGENCO	Andhra Pradesh	lx500MW	500
2.	Kothagudem TPP Extn., APGENCO	Andhra Pradesh	lxSOOMW	500
3.	Rayalaseema St-III U-5, APGENCO	Andhra Pradesh	lx210MW	210
4.	Vijayawada TPP-IV, U-l, APGENCO	Andhra Pradesh	lx500MW	500
5.	Lakwa Waste Heat Unit. APGCL	Assam	lx38MW (ST)	37.2
6.	Korba East TPP ST-5, CSEB	Chhattisgarh	2x250MW	350
7.	Kutch Lignite TPS Extn., GSPCL	Gujarat	1x75	75
8.	Sikka TPS Extn., GSPCL	Gujarat	2x250MW	500
9.	Surat Lignite TPS Extn., GIPCL	Gujarat	2xl25MW	250
10.	Ukai TPS Extn., GSECL	Gujarat	1x500	490
11.	Utran CCPP Extn., GSECL	Gujarat	lx350MW (GT+ST)	374
12.	Rajiv Gandhi TPS, Hissar, HPGCL	Haryana	2x600MW	1200
13.	Yamuna Nagar TPP, HPGCL	Haryana	2x300MW	300
14.	Bellary, KPCL	Karnataka	lx500MW	500
15.	Bellary TPP St-II, U-2, KPCL	Karnataka	1x500	500
16.	Raichur U-8, KPCL	Karnataka	lx250MW	250
17.	Bhusawal Extn., MSPGCL	Maharashtra	2x500MW	1000
18.	Khaperkheda Extn., MSPGCL	Maharashtra	lx500MW	500
19.	New Parli Extn., St-II, MSPGCL	Maharashtra	lx250MW	250
20.	Paras TPS Extn., MSPGCL	Maharashtra	lx250MW	250
21.	Amarkantak TPS Extension, MPPGCL	Madhya Pradesh	lx210MW	210
22.	Guru Har Govind TPS-II, PSEB	Punjab	2x250	500
23.	Chhabra TPS.RRVUNL	Rajasthan	2x250MW	500
24.	Dholpur CCGT, RRVUNL	Rajasthan	330(GT+ST) MW	no
25.	Giral Lignite-II, RRVUNL	Rajasthan	U125MW	125
26.	Kota TPP, RRVUNL	Rajasthan	lx195MW	195

1	2	3	' 4	
27	Suratgarh TPP, RRVUNL	Rajasthan	1x250	250
28.	Valuthur CCPP Extn., TNEB	Tamil Nadu	GT+ST	92.2
29.	Harduaganj Ext., UPRVUNL	Utt ar Pradesh	2x250MW	500
30.	Parichha Extn., UPRVUNL	Uttar Pradesh	2x250MW	500
31.	BakcreshwarTPS, WBPDCL	West Bengal	2x210MW	420
32.	Sagardighi TPP, WBPDCL	West Bengal	2x300MW	600
33.	Santaldih TPP Extn., Ph2, WBPDCL	West Bengal	lx250MW	250
	State Sector		TOTAL CAPACITY(MW)	12688.4
	Private Sector			
1.	Gautami CCPP, Gautami Power Ltd.	Andhra Pradesh	2x145+174	464
2.	Konaseema CCPP, Konaseema EPS	Andhra Pradesh	2x140+165	445
3.	Lanco Amarkantak TPS Ph-I, U-2, Lanco Amarkantak Power Pvt. Ltd.	Chhattisgarh	1x300	300
4.	Lanco Amarkantak TPSPh-l.U-l, Lanco Amarkantak Power Pvt. Ltd.	Chhattisgarh	1x300 MW	300
5.	O.P. Jindal STPP, Jindal Power Ltd.	Chhattisgarh	4x250 MW	750
6.	Mundra STPP, Adani, Adani Power Ltd. Pvt.	Gujarat	2x660 MW	1320
7.	Mundra TPP, Adani Ph-1, Adani Power Pvt. Ltd.	Gujarat	2x330 MW	660
8.	Mundra TPP, Adani Ph-2, Adani Powei Pvt. Ltd.	Gujarat	2x330 MW	660
9.	Sugen CCPP (Akhakhol), Torrent Power Gen. Ltd.	Gujarat	3x376 MW	1128
10.	Nagarjuna Power Project, NPCL	Karnataka	2x507.5 MW	1015
11.	Toranagallu TPP, JSW Energy (Vijayanagar) Ltd.,	Karnataka	2x300 MW	600
12.	JSW Ratnagiri TPP, JSW Energy (Ratnagiri) Ltd.	Maharashtra	4x300	1200
13.	Trombay TPS Extn., Tata Power Company	Maharashtra	1x250 MW	250
14.	Sterlite TPP, Sterlite Energy Limited	Orissa	4x600	600
15.	Jallipa-Kapurdi TPP*, Raj West Power Ltd. (JSW)	Rajasthan	8x135 MW	1080
16.	Anpara-C*. Lanco Anpara 'C	Uttar Pradesh	2x500 MW	1000
17.	Rosa TPP, Rosa Power Supply Co. Ltd., Reliance Energy	Uttar Pradesh	2x300 MW	600
18.	Budge-Budge II, CESC	West Bengal	1x250 MW	250
	Private		TOTAL CAPACTTY(MW)	12622

1	2	3	4
Benefit during 12th Plan			
1 Mundra UMPP, Tata Power Company	Gujarat	5x800 MW	4000
14B Sterlite TPP, Sterlite Energy Limited	Orissa	4x600	1800
Total Capacity (MW)			5800

Abbreviations:

APGENCO	Andhra Pradesh Power Generation Corporation
APGCL	Assam Power Generation Corporation Limited
CSEB	Chhattisgarh State Electricity Board
GSPCL	Gujart State Power Corporation Limited
HPGCL	Himachal Pradesh Generation Corporation Limited
KPCL	Karnataka Power Corporation Limited
MPPGCL	Madhya Pradesh Power Generation Corporation Limited
MSPGCL	Maharashtra State Power Generation Corporation Limited
PSEB	Punjab State Electricity Board
RRVUNL	Rajasthan Rajya Vidyut Utpadan Nigam Limited
TNEB	Tamil Nadu Electricity Board
WBPDCL	West Bengal Power Development Corporation Limited
UPRVUNL	Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited

Setting up of UMPPs

429. SHRI RAJEEV CHANDRASEKHAR: Will the Minister of POWER be pleased to state:

whether it is a fact that Government has not been able to identify the sites of 10 Ultra Mega Power Projects (UMPPs) that were proposed to be set-up;

if so, the reasons therefor;

the number of cases in which sites for such projects have, so far, been identified and bids from private companies, etc., invited and finalized with the. details of each case; and

the action proposed in finalizing other such Projects during 2008-09?

THE MINISTER OF POWER (SHRI SUSHIL KUMAR SHINDE): (a) to (d) After finalization of sites in consultation with the States, bidding process has been initiated in respect of four Ultra Mega Power projects (UMPPs). Out of these four, bidding process in respect of UMPPs to be located in Sasan (Madhya Pradesh), Mundra (Gujarat) and Krishnapatnam (Andhra Prdesh) has been completed and the Special Purpose Vehicles have been tansferred to Reliance Power Limited in respect of Sasan and Krishnapatnam UMPPs and to Tata Power Company Limited in respect of Mundra UMPP, being the successful developers identified through tariff based competitive bidding process. The bidding process in respect of the fourth project namely, Tillaiya UMPP is currently in progress.